

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
15 April 2004 (15.04.2004)

PCT

(10) International Publication Number
WO 2004/032489 A2

- (51) International Patent Classification⁷: **H04N 5/335**
- (21) International Application Number:
PCT/GB2003/004277
- (22) International Filing Date: 3 October 2003 (03.10.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0222990.4 4 October 2002 (04.10.2002) GB
- (71) Applicant (for all designated States except US): **E2V TECHNOLOGIES LIMITED** [GB/GB]; 106 Waterhouse Lane, Chelmsford, Essex CM1 2QU (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **POOL, Peter, James** [GB/GB]; 218 Fanbridge Road, Maldon, Essex CM9 6BJ (GB). **BELL, Raymond, Thomas** [GB/GB]; 4 Alton Avenue, Stanmore, Middlesex HA7 3PQ (GB).

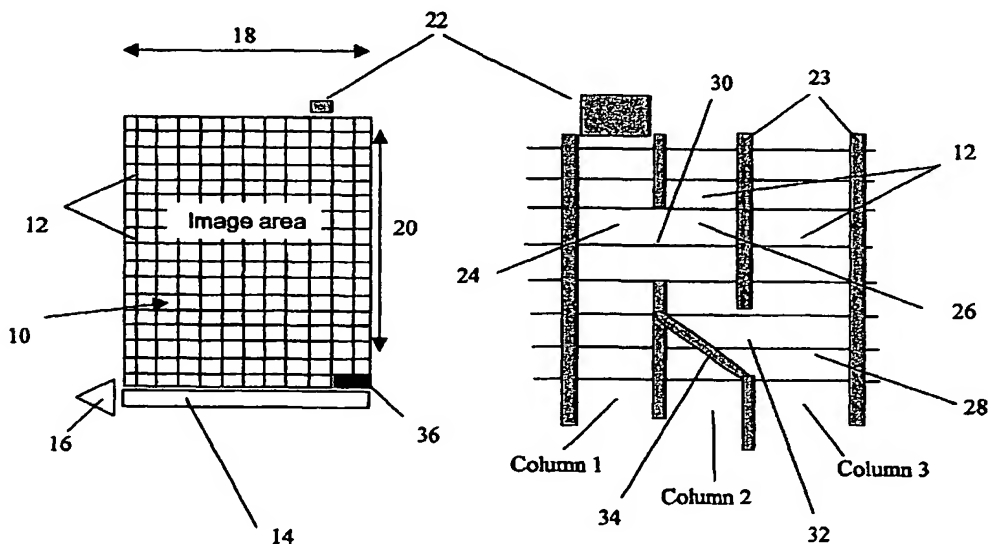
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **SOLID STATE IMAGER**



(57) Abstract: A charge division arrangement for a CCD device for producing a divided charge output from an input charge, comprising an input for receiving an input charge, an array of elements and an output. The array of elements being arranged in rows and columns and having clock connections to allow charge in each row to be successively clocked from one row of elements to the next. At least some of the elements being arranged in a charge division unit having a first element and a second element in adjacent columns and being communicable at least temporarily so that charged introduced into the first element is divided between the first element and the second element, the charge division unit being arranged to produce divided charge for production at the output. The arrangement allows a small amount of charge to be introduced into a CCD circuit.